

Title (en)

OPTICAL FILTER MATRIX STRUCTURE AND ASSOCIATED IMAGE SENSOR

Title (de)

MATRIXSTRUKTUR FÜR OPTISCHE FILTER UND DETEKTOR MIT DERSELBEN

Title (fr)

STRUCTURE MATRICIELLE DE FILTRAGE OPTIQUE ET CAPTEUR D'IMAGES ASSOCIÉ

Publication

EP 2044474 B1 20191211 (FR)

Application

EP 07787620 A 20070717

Priority

- EP 2007057354 W 20070717
- FR 0653093 A 20060725

Abstract (en)

[origin: WO2008012235A1] The invention concerns an optical filter matrix structure composed of a set of at least two elementary (R, G, B) optical filters, one elementary optical filter being centered on an optimal transmission frequency, characterized in that it comprises a stack of n metallic layers (m1, m2, m3) and n appreciably transparent layers (d1, d2, d3) that alternate between a first nth metallic layer (m1) and an appreciably transparent layer (d3), the n metallic layers (m1, m2, m3) each having a constant thickness and at least one appreciably transparent layer having a variable thickness that determines the optimal transmission frequency of an elementary optical filter, n being a whole number equal to or greater than 2. Application to miniature image sensors.

IPC 8 full level

G02B 5/28 (2006.01); **G02B 5/20** (2006.01); **H01L 27/146** (2006.01)

CPC (source: EP KR US)

G02B 5/20 (2013.01 - KR); **G02B 5/201** (2013.01 - EP US); **G02B 5/288** (2013.01 - EP US); **H01L 27/146** (2013.01 - KR); **H01L 27/14621** (2013.01 - EP US); **H01L 27/14632** (2013.01 - EP US); **H01L 31/0216** (2013.01 - KR); **H01L 27/14609** (2013.01 - EP US); **H01L 27/14627** (2013.01 - EP US)

Citation (examination)

US 6262830 B1 20010717 - SCALORA MICHAEL [US]

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008012235 A1 20080131; CN 101495889 A 20090729; EP 2044474 A1 20090408; EP 2044474 B1 20191211; FR 2904432 A1 20080201; FR 2904432 B1 20081024; JP 2009545150 A 20091217; KR 20090033269 A 20090401; US 2009302407 A1 20091210; US 8587080 B2 20131119

DOCDB simple family (application)

EP 2007057354 W 20070717; CN 200780027907 A 20070717; EP 07787620 A 20070717; FR 0653093 A 20060725; JP 2009521216 A 20070717; KR 20097003266 A 20090217; US 37383207 A 20070717